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Volume 92, 2005 - [Issue 6](#)

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Realization of multiple-output biquadratic filters using current differencing buffered amplifiers

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Pages 313-325 | Received 29 May 2004, Published online: 20 Feb 2007

🗨️ Cite this article 🔗 <https://doi.org/10.1080/00207210500141862>

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Abstract

In this paper, multiple-output multifunctional biquadratic filters using current differencing buffered amplifiers (CDBAs) as active elements are presented. The proposed circuit configuration is mainly composed of the CDBA-based cross-coupled feedback configuration and the simple CDBA-based voltage subtractor. By an appropriate choice of virtually grounded passive components, the configuration can simultaneously realize lowpass, highpass, bandpass, bandstop and allpass voltage transfer functions, all at low resistance outputs. The natural angular frequency and the quality factor can orthogonally controllable. Experimental results verifying the theoretical analysis are also given.

Keywords:

Acknowledgments

This work is funded by the Thailand Research Fund (TRF) under the Senior Research Scholar Program, grant number RTA4680003. The authors also wish to express their gratitude to the anonymous reviewers for their useful comments and suggestions.

Related Research Data

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Quadrature Sinusoidal Oscillators Using CDBAs: New Realizations

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